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Legal Aspects, Limitation, and Obligations of Oil Well Drilling With Special Refrence to North Dakota

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LEGAL ASPECTS, LIMITATIONS, AND OBLIGATIONS OF OIL WELL DRILLING WITH SPECIAL REFERENCE TO NORTH DAKOTA

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Abstract

In the drilling of an oil or gas well, a person must first acquire the right to drill. This can be accomplished by the purchase of the land or of the mineral rights, although it is usually done by leasing the mineral rights. Before drilling, he must perform all operations required by the state in which he intends to drill. During drilling, he must observe the rights of adjacent landowners, safety regulations, rules preventing contamination of ground waters and wasting of oil, and any other regulations which are in effect in the state in which he drills.

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LEGAL ASPECTS, LIMITATIONS, AND OBLIGATIONS IN OIL WELL DRILLING WITH SPECIAL REFERENCE TO NORTH DAKOTA

Introduction

Oil and gas laws are of relatively recent origin. The first oil well was discovered in 1859 in Titusville, Pennsylvania, from a well only seventy feet deep(Kulp, 1954, p. 507). North Dakota is one of the latest states in which oil has been discovered. Thirty years ago, while working for the United States Geological Survey, A. J. Collier published a report on the Nesson Anticline in Williams County, North Dakota, in which he stated that there was a possibility of oil being found in the Nesson Anticline (Budge, 1954, p. 49). The Nesson Anticline is one of the major structures in the Williston Basin, which covers thirty nine million acres in the western half of NorthDakota. (Petroleum Information, 1952, p. 53). A few years later A. G. Leonard, then state geologist, reported that it was not unlikely that oil would be found in the state (Budge, 1954, p. 49).

Gas was first discovered in the state in July, 1907, nine miles south of Westhope in Bottineau County while drilling for water(Murphey, 1949, p. 347). By 1930, there were local natural gas wells in five counties. They were used for local lighting, power, and heating. Although many wells were drilled in the first half of the century, oil wasn't discovered until April 4, 1951, when it was

discovered in Williams County. This first discovery made North Dakota an oil producing state; and less than two years later, there were over two hundred and fifty producing wells(Budge, 1954, p. 49-50).

This report was written to present a general summary of the legal aspects of oil well drilling. Special reference has been given to lease and drilling regulations in North Dakota. The writer would like to thank F. D. HOlland Jr. for his assistance in the writing of the report.

Landowner's Rights

The Rule of Capture

Oil or petroleum is different than other economically important minerals in that it has physical properties which allow it to flow or migrate underground. It may be located under a certain tract of land at the present time, and because of it's ability to flow, migrate to a different underground position in the future. It was these physical properties of oil and the belief that oil acted as a wild animal and moved mysteriously through the earth, that brought about the " Rule of Capture " (Pettengill, 1936, p. 8-9). The rule of capture is common law which states that a landowner or his lessee may produce all the oil and gas he can through wells on his land, regardless of the original source of supply (Hazlett, 1953, p. 32). The theory was that oil moved around at random and if a

landowner had a chance to "capture" it while it was under his land that he should do so, before it moved away.

Hazlett (1953, p. 33-34) states that the rule of capture came into being(outside of wildlife) in England in 1843, when it was applied to underground water. By 1859, when the first oil well was struck in the United States, the rule had gained acceptance as common law in the American courts in reference to ground water. It was then applied to oil and gas, because of the similiar behavior of oil and gas underground. It was first legalized, with respect to gas in 1899 in the famous case of Westmorland and Cambria Natural Gas Company versus DeWitt et. al. in the Pennsylvania Supreme Court (Pettengill, 1936, p. 75). The case itself concerned natural gas, but the principle was soon extended to oil.

According to the rule of capture, each landowner could drill as many wells as he wanted in order to catch all the oil he could before it disappeared from under his land. This resulted in fierce competition, when more than one landowner was producing out of a single pool of oil. Each owner would produce as much oil as possible in order to keep up with his neighbors or surpass them if possible in the amount of oil produced from a single pool (Pettengill, 1936, p. 73-74).

Pettengill (1936, p. 72) has utilized as an example of the rule of capture the situation of two boys, each with

a straw, drinking lemonade from a single glass. If the first boy sucks nine tenths of the lemonade from the glass before the second boy gets his straw in the glass; the second boy is out of luck. The rule of capture forced producers into one drilling race after another. When this mad rush of drilling produced more oil than the market could absorb, it caused the price of oil to drop. After the market became saturated, each producer continued to produce from his wells, rather than have his neighbors drain the oil from his land. When the demand for oil had lowered the price further, surplus oil was stored in pits, open ditches, and much of it was lost through evaporation and seepage. Serous fire hazards were created, and ground waters were poluted through seepage (Hazlett, 1953, p. 39-41).

Pettengill (1936, p. 73-74) called this competitive production wasteful, because of the rapid exhaustion of reservoir energy and the actual recovery from the pool is only ten to twenty per cent instead of fifty to sixty per cent, as it would be if the field had been scientifically developed and the oil produced at the rate which would allow maximum recovery of oil.

To the early courts, gas and oil were more mysterious than underground water. It was thought that oil moved in running streams or existed in lakes or pools, and moved more or less aimlessly through the earth. The concept of a lake or pool of oil was held by a New York court as late

as 1902. If the early courts had known that oil usually occurs locked in structural traps within the earth, and that it can be drawn into a well from distances of up to thousands of feet; there probibly would have been no rule of capture in our common law (Hazlett, 1953, p. 37-39).

Rule of Correlative Rights

In more recent court cases concering ownership of gas and oil, the rule of correlative rights has replaced the rule of capture. Correlative rights is a way of stating that each landowner in a common source of oil and gas is limited by duties to the other landowners not to injure the reservoir or to take an undue proportion of the oil and gas aviable. Many conservation laws have been held constitutional on the grounds put forth in this doctrine. Correlative rights were first generally used in protecting surface waters, and has grown to include underground water as well as gas and oil (The Sec. of Mineral Law of the Am. Bar Assoc., 1939, p. 7-11).

Development of Conservation Laws

Logan (1930, p. 157-158) states that the wasteful conditions that were present when the rule of capture was in effect produced the first conservation laws. Oklahoma adopted a proration statue in 1915. Proration is a method, whereby in order to prevent discrimination , all purchasing companies are required to buy all oil and gas that is

offered to them. When production of oil exceeds the ability of the companies to buy the oil, each producer is allowed to produce a fraction of the total oil needed. The purpose of proration is to postpone production. Oklahoma did not use the proration statue right away, because World War I was taking all the oil that could be produced. It's first real use was in 1930 when the Oklahoma City Oil Field was discovered. In Texas, when the East Texas Field was discovered, oil again flooded the market. The price of oil dropped to ten cents per barrel with no buyers. Texas then adopted a conservation law similiar to the one used in Oklahoma with other oil producing states soon following their example (Hazlett, 1953, p. 40).

Besides regulating the excess production of oil, the typical conservation law prohibits the improper use of, or unnecessary dissipation of reservoir energy or locating, spacing, drilling, operation, or producing of an oil well in any manner that tends to reduce the amount of oil that is ultimately recoverable (Hazlett, 1953, p. 40). Murphey (1949, p. 571) points out that most oil producing states today belong to the Interstate Oil Compact Commission, which is a group of states that work together within a constitutionally approved formula to conserve the oil and gas resources of the United States. They have no enforcement power, but each member state assumes a moral obligation to do it's part in enacting and enforcing laws for the

conservation of oil and gas.

In North Dakota, the development of oil and gas laws began long before oil was discovered in 1951. In 1911, a law was passed providing that any natural gas well must be plugged or closed until the gas could be used for lights, fuel, or power. In 1929, the State Legislature passed a law which stated that anyone drilling a test hole or an oil or gas well must acquire a permit from the State Geologist and furnish him with a detailed drilling log. Anyone, who had interest in land located within six miles of this hole could come to the State Geologist's office and examine the drilling log. This law was not designed as a conservation statue, but it was to limit fraud on innocent farmers and landowners. It was largely disregarded, and it was not enforced by the State Geologist. Because the drilling logs were open to a portion of the public, the law served to limit prospecting. This fact and the influence of oil and gas companies caused the law to be repealed in 1937(Murphey, 1949, p. 348-350).

Murphey (1949, p.350) further states that when this law was repealed, a new one was enacted which provided that rules and regulations for the drilling, casing, and abandonment of oil and gas wells be prescribed and enforced by the State Geologist. Detailed well logs were to be filed as before, but they were not to be open to any portion of the public. This law encouraged more exploration and

drilling of wildcat oil wells, but no evidence can be found of the rules and regulatins that were to be prescibed by the State Geologist.

The drafting of a conservation law was started by State Geologist Dr. Frank Foley and continued by Dr. Wilson M. Laird, who sucéeded him in the fall of 1940. This first proposal was later discarded, and a suggested statue compiled by the Legal Committee of the Interstate Oil Compact Commission was adopted and passed unaminously by the State Legislature in 1941. It was revised in 1943 and forms the basis for North Dakota's present rules and regulations, which were enacted in 1953 (Murphey, 1949, p. 350-351).

Leasing

Private Land

The right to explore for oil and gas on a certain tract of land may be secured by: 1. purchase of the land, 2. purchase of the mineral rights, 3. assignment of either the land or the oil and gas rights from the previous holder, or 4, lease of the oil and gas rights. Of these four methods, leasing is the most common one used (Logan, 1930, p. 52). Breeding and Burton (1954, p. 6) state that inherent in the ownership of oil is the right to extract or produce it. This right may be transfered to another person by means of the oil and gas lease.

The first oil lease negotiated in this country was signed in 1853 in Pennsylvania. This was six years before the discovery of the first oil well. This first lease differed from most modern leases in that it contained no requirement to drill a well (Logan, 1930, p. 55). Breeding and Burton (1954, p. 5-6) point out that the first studies of surface conditions in the search for oil and gas are usually conducted from highways, water, or airways. If more detailed studies of surface conditions are desired in an area it is necessary to obtain permission from the landowners, whether they be public or private. This permission is usually granted in return for a set fee, either with or without an allowance for damages.

In ordinary oil and gas leases, the lessee is given the right to enter upon a property and to perform all acts necessary and incident to the production of oil or gas. This includes the right to explore for oil and gas and the right to drill wells in order to obtain production of oil and gas. The lease is usually for a fixed term and for as long thereafter as production is continued, if production commenced in the period of time before the lease expired. In return for the rights granted him in the lease, the lessee pays the owner a certain amount per acre in the form of a cash bonus and a annual rental until production is started or the lease is terminated. The lessee also promises to pay the landowner the cash value of a specified

fraction of all the oil and gas produced (Breeding and Burton, 1954, p. 6-7). This fraction of the cash value of the oil and gas is called royalty, and the common fraction today is on eighth to the landowner (Cloud, 1937, p. 3). Cloud (p. 7) further states that the common lease today is for a short term of usually on to ten years with a " thereafter" clause which automatically permits an extension of the lease for as long as production of oil or gas continues. Generally the lease may be terminated by the lessee without penalty.

Two main types of leases have been used since the search for oil began in this country. One type that is fast becoming obselete is the "drill or pay" lease. Under this lease, the lessee must commence or complete a well within a certain time, or else pay a delay rental or loose the lease. It usually contained a surrender clause, which allowed the lessee to terminate the lease at anytime by paying a predetermined fee to the lessor. The type of lease that is large used today is the "unless" lease, in which if no well is started within a specified time the lease will be terminated "unless" the lessee pays a specified sum for delay during the next rental period. In most leases today, the lessee can terminate the lease without paying a penalty (Cloud, 1937, p. 7). Breeding and Burton (1954, p. 5-6) point out that some leases contain "acreage" clauses which allow the lessee

"acreage" selection" clauses which allow the lessee to survey a large area and grant him an option of the portion of the land to be selected for the lease.

All states agree that a lease acquired from a minor is void, but there is a difference of opinion as to wether or not a wife can lease her husband's land. Generally the ability of a person to execute a lease is determined by the laws of the state in which he is located (Kulp, 1954, p. 540-543 & 555). An oil or gas lease, according to Cloud (1937, p. 11-13) , that is over one year in duration must be in writing as stated in the Statue of Frauds. The lessee may transfer his rights, interests, and obligations to another person or firm by means of an assignment. The lessee in doing this does not guarantee the title to be good, and the person or firm acquiring the lease does not have any better rights or title than the orignal lessee.

When a person who thinks that he has clear title to the mineral rights, drills a well and produces oil, and then finds out that he does not have that clear title; he must forefit the lease to the rightful owner, who must pay him for the cost of drilling for, producing, and marketing the oil that has been sold. A willful trespasser looses everything (Cloud, 1937, p. 11). Cloud (p.13-14) states that a landowner may sell all or a part of his mineral rights and in doing so , be selling his royalty interest in any oil or gas production that may result on his land. This transfer of rights is accomplished by the mineral or royalty deed and does not in anyway interfere with the

lessee's rights.

Public Land

-Federal Land

Legislation in connection with the leasing of public land tries to accomplish: 1. the fixing of a minimum area for a single lease, 2. the fixing of the rate and form of royalty, 3. the fixing of minimum drilling regulations, 4. the fixing of minimum annual payments, and5. the fixing of reasonable conditions to safeguard property from bad treatment or development (Thompson, 1950, p. 580).

Leases on public land fall into two general classes, federal and state. Most federal oil land is located in the western half of the United States in the Rocky Mountain and Pacific Coast oil fields A large part of state land is school land. Texas has two million acres set aside for the University of Texas of which two hundred and fifty thousand acres is in production areas (Logan, 1930, p. 63).

In 1920, the Federal Oil Leasing Act was passed. It gave prospecting rights to oil prospectors or "wildcatters." It granted land in blocks of 2,560 acres upon which the prospector had to start drilling within six months and drill to an aggregate depth of two thousand feet in one or more wells within two years unless he hit oil before that. If he didn't hit oil within the two years, the lease expired and it had to be renewed. No one person was

was allowed to have more than one lease within the structure of a producing oil field or more than three leases within a state (Ise, 1928, p. 351).

Cloud (1937, p. 6) states that this act was ammended in 1931 and 1935 to provide for co-operative operation and development. It was also ruled that all prospecting permits would expire at the end of 1938, and that any leases issued should be operated on a unit or co-operative plan for the pool or oil field in which each group of leases were located. Under this unit plan, production was alloted on the acreage basis, where the lessees with more land were allowed a comparable larger amount of oil.

Federal land is leased in units of not more than 640 acres to the highest qualified bidder. The lease term is for five or ten years with an annual rental charge of not less than twenty five cents per acre. The lessee is required to furnish a surety bond of $5,000 for each lease. A lease can not be sublet or assigned without written consent from the Secretary of the Interior. If the lease expires or is terminated, the new lessee, if there is one, may elect to buy the drilling equipment from the original lessee at a reasonable price as fixed by a board of three appraisers. The federal government retains the right to build roads, waterways, or tunnels across leased land (Cloud, 1937, p. 6). In North Dakota, federal leases must comply with all applicable rules and

and regulations that do not conflict with existing federal regulations (The Indus. Comm. of North Dakota, 1953, p.31).

-Indian Lands

Land Land set aside for Indian reservations is usually leased by sealed bonus bidding with $1.25 yearly rental per acre and the usual one eighth royalty for a five year lease. With most of these lease offerings, a deposit of twenty per cent of the bonus and the advance rental for the first year must accompany the bid. Indian lands are of two types. There are tribal controlled and alloted lands. Alloted lands are designated to some member of the tribe and his signature is required on the lease (Petroleum Information, 1952, p. 53). On Indian lands the federal government reserves the right to use, regulate the amount and manner of production of any helium produced (Cloud, 1937, p. 4).

-State Lands

The leasing of state owned land depends upon the statuatory requirments of the state in which the land is located. While some states lease prospective oil and gas land outright, most states follow the procedure of legal notice, advirtisement, and sealed bidding. The leases are usually for a period of five years with the common one eighth royalty. The state usually reserves the right to reject any or all bids (Cloud, 1937, p.3).

State land in North Dakota consists of land set aside for schools, land gained from tax foreclosure, land gained from purchase, and lieu land, which is land exchanged for other land in other portions of the state. These lands consist of one sixteenth of all the land in the oil producing portion of North Dakota.

Just before oil was discovered in the state, an emergency was deemed to exist and an act setting up regulations for the leasing of state land was approved March 13, 1951. It states that before leasing the state shall advertise the prospective land in the official county newspaper of the county in which the land is located and in a newspaper of general circulation published in Bismarck, once a week for two weeks with the last advertisement coming ten days before the actual leasing. Leasing by sealed bids is held at the office of the department or agency that controls the land. The state reserves the right to reject any or all bids. The leases run for at least five years and continue as long as production lasts. A one eighth royalty is standard with a yearly rental fee. The successful bidder must pay the cost of advertising immediately after the sale. In the case of land owned by the Bank of North Dakota, each application for lease must be accompanied by a deposit to cover the price of advertising (Petroleum Information, 1952, p. 53-63).

Drilling Contracts

A drilling contract is a written agreement between

a lessee or operator and a drilling contractor, who is someone in the business of drilling other people's oil and gas wells . Few major companies, today, own their own drilling equipment. Drilling contracts must be detailed and explicit in order to avoid mistakes, delays, and misunderstandings (Cloud, 1937, p. 17).

According to Kulp (1954, p. 758-764) the rights and obligations under a drilling contract depend upon contract and damage law if it is in writing. An option contract to drill to a certain depth becomes binding when the optionee starts to drill. If the driller causes harm to third persons, underground, or due to the damage of surface rights, he must be proven negligent or else it is termed liability without fault, unless it is a penal offense according to state or federal law.

Drilling Rules and Regulations

All oil producing states have laws to govern the drilling for oil. These laws are usually enforced by some state department, which usually has the authority to make or repeal regulations as changes are needed(Cloud, 1937, p. 21). As stated earlier, the present North Dakota drilling regulations were enacted in 1953. These rules are enforced by the Industrial Commissionof North Dakota by it's agents, employees, and representatives. The Industrial Commission, which consists of the Governor, Attorney General, and the Commissionar of Agriculture

and Labor, meets and holds hearings in Bismarck (The North Dakota Indus. Comm., 1953, p. 30). All owners and operators must obtain information pertaining to oil well drilling before starting to drill. Ignorance of the law is no excuse. The State Geologist shall act as supervisor in enforcing rules, regulations, and orders; and any inquires pretaining to drilling should be directed to him at the University of North Dakota (The Indus. Comm. of North Dakota, 1953, p. 4, 30, &63).

Before Drilling

The procedure to be followed in North Dakota before actually drilling a well may be divided into four main steps. First a bond executed by a responsible surety company, authorized to do business in North Dakota, must be submitted to the State Industrial Commission and subsequently be approved by them. When only one well is being drilled, the bond shall be for $2,000; however if more than one well is to be drilled a "blanket bond" may be obtained for $10,000 to cover all the wells regardless of number. This required bond endures up to and including the approved plugging of the well (The Indus. Comm. of North Dakota, 1953, p. 33).

The transfer of property does not release the bond. If the original owner wishes to be released from the bond after the transfer of property, he must report the transfer to the Commission, the new owner must accept the responsibility of his new well in writing, and submit an acceptable bond.

All of these acts must be passed on by the Commission or the State Geologist, who has the power to act for the Commission in matters pretaining to this rule(The Indus. Comm. of North Dakota, 1953, p. 34-35).

The second step before drilling is the filing of an organization report with the State Geologist. This report must contain: 1. name of business, 2. names and post office addresses of owners, 3. business or businesses they are engaged in, 4. the plan of organization , or if a corporation the law under which it is chartered, 5. names and addresses of any persons acting as trustees , and 6. names and addresses of any persons acting as managers, agents, executives, or officials of the business. A report of any change of the conditions stated in this report must be summited under oath as soon as possible to the State Geologist (The Indus, Comm. of North Dakota, 1953, p. 32).

The third step is the obtaining of a drilling permit from the State Geologist. The application for the drilling permit must be on a form provided by the Commission and be accompanied by a fee of $25 and a certified plat of the proposed location of the well by a certified surveyor(The Indus. Comm. of North Dakota, 1953, p. 63).

The last step before drilling is the filing of a notice of intention to drill. This must include the name, permit number, and exact location of the well, the

approximate date operation will begin, the estimated total penetration or depth, the casing program to be followed, and the type of drilling equipment to be used, and the owner of the drilling equipment. After this the actual drilling may proceed(The Indus. Comm. of North Dakota, 1953, p. 35).

After work on the well has started, a report on intention to change plans, pull casing, abandon the well, repair the well, run a well potential test, or shoot or acidize the well, must be submitted to the State Geologist before any of the above actions are started. This is to allow him time to plan to observe, or have a representative observe, the more important operations to assertain that the drilling is being carried out in accordance with the law(The Indus. Comm. of North Dakota, 1953, p.64).

The North Dakota law also requires that samples of formations penatrated must be saved and sent to the State Geologist free of charge. Cores, electric logs, and other logs if they are taken must also be furnished free of charge if they are requested. The formation samples and other requested material must be furnished to the State Geologist within six months after the completion or abandonment of the well. If the operator of the well requests so in writing, all information furnished to the state Geologist will be kept confidential for a period of six months after the completion or abandonment of the well (The Indus.

Comm. of North Dakota, 1953, p. 5, 64).

Well Spacing

According to Hazlett(1953, p. 41) the drilling of unnecessary wells is a waste of valuable material. Each new oil field under well spacing regulations is divided into drilling units, each of which is the maximum area which can be drained efficiently and economically by a single unit well. Most states in accordance with oil and gas conservation laws (Thompson, 1950, p.68) have regulations controlling well spacing. This is based on the assumption that slower and more diversified production will add to the ultimate recovery of oil from a pool.

In North Dakota spacing regulations are set by the State Industrial Commission. Within fifteen days after an oil or gas well completion in a new pool, the Commission will meet and set up a tempory spacing pattern, which will continue in force for a period of not more than eighteen months. At the expiration of this time or before, a hearing will behheld with information gathered from the trial period used to determine the proper well spacing for the pool.

After the trial period, the State Geologist may issue an order allowing a prescribed well to be drilled at a different location than that given under the well spacing regulation. This is granted in special cases where: 1.surface

conditions at the prescribed well site would substantially add to the hazard or burdon of such well, or 2. the prescribed well would not produce in paying quanities(The Indus. Comm. of North Dakota, 1953, p. 37-38).

During Drilling

During the drilling of a well, the well must be identified by a sign, legible from fifty feet, located within twenty feet of the well. This sign must show the number of the well, the name of the lease, the name of the lessee, owner or operator, permit number, and the location by Quarter, Section, Township, and Range. Each well must have an adequate pit for the accumilation of drill cuttings in order to assure a proper supply of mudladen fluid to confine oil, gas, or water to their native strata. During the drilling of the well all oil, gas, and water above the producing horizon of the well must be sealed off in order to prevent their leakage into other strata. This is in order to prevent the contaminatin of any fresh water that has any domestic, commercial, or stock value. It is also to guard aginst the loss of water and astesian water pressure from any strata (The Indus. Comm. of North Dakota, 1953, p. 35-39).

This prevention of the contamination of underground fresh water supplies is accomplished by the use of well casing. Casing is tubing that creates an impervious layer around the exterior of the hole from the ground down

to the top of the producing horizon. This well casing is laid in sections as drilling progresses and also serves as a conductor for the drill bit and the drill pipe (Breeding and Burton, 1954, p. 10). Proper and necessary precautions must be taken by the driller in order to keep the well under control and prevent blow outs. Also the well must be drilled in a vertical direction. When the deviation from the vertical is more than four degrees the State Geologist may require that the hole be straightened. The State Industrial Commission may require directional surveys to be taken when the bottom of the well is in doubt. Special permits to drill in a non-vertical direction may be obtained after a hearing before the Commission. If there is any completion in a well it may be in one zone only unless a multiple completion is permitted by order of the Commission (The Indus. Comm. of North Dakota, 1953, p. 40).

Kulp (1954, p. 528) states that in taking oil by subsurface trespassing, through slant-hole drilling, the producer is liable for the value of the oil and gas brought to the surface minus the cost of producing it. If this is done willfully or in bad faith, there is no deduction for the cost of production.

Well Abandoment

In the abandoment and plugging of a oil or gas well, sufficiant care must be taken to prevent the escape of

oil or gas out of one stratum into another, intrusion of water into an oil or gas stratum, and polution of fresh water suplies (The Indus. Comm. of North Dakota, 1953, p. 5).

Any person who violates any of the rules of the North Dakota State Industrial Commission is subject to a penalty of up to $1,000 per day as long as the violation continues, unless the penalty for the violation has been previously set by law. Any person who changes, falsifies, omitts correct entries on all or part of a report required by the Commission is guilty of a misdeamor, punishable by not more than $5,000 fine nor more than six months in prison or both. Any person helping another person is subject to the same penalty as the offendor (The Indus. Comm. of North Dakota, 1953, p. 18-19).

Existing Conditions and Future Outlook

Since the first oil well was drilled ninty nine years ago, there have been many changes in oil and gas laws. The two World Wars have helped to bring about the realization that our petroleum supplies are not unlimited and that something must be done to protect them. In the early part of this century, a large amount of oil was being needlessly wasted through improper drilling and over flooding of the market. All oil producing states now have conservation

laws, althougth they do not all belong to the Interstate Oil Compact Commission. Each state should continue to watch and revise its own laws in order to have laws that are adequate and will comply with changing conditions. A general conservation law by the federal government would not be good in that it would not allow for the difference in existing conditions in different states.

The rule of correlative rights has replaced the rule of capture in most court cases which concern landowners rights. This rule is better in that itdoes not allow a person to be deprived of oil that exists under his land, just because he doesn't drill a well before his neighbor does.

Leasing, or the giving of the right to prospect for and produce oil and gas on one's land in return for a bonus, an annual rental fee, and a specified fraction of the production, should be left up to the individual landowner with adequate damage and fraud laws to protect him. In the leasing of public lands, care must be taken in order to give everyone an equal oportunity in acquiring the lease. Each state should have adequate laws to prevent during drilling: 1. waste of gas or oil, 2. contamination of undgrground or surface waters, 3. dangerous conditions, and 4.damage to land surface. North Dakota's present rules and regulations do this very adequately at the present time.

Literature Cited:

Breeding, C. W., and Burton, A. G., 1954, Taxiation of oil and gas income: New York, Prentice-Hall Inc., p. 5-13.

Budge, C. E., 1954, The mineral resources of North Dakota: Bismarck, N. Dak. State Research Found. Bull.#8, p.49-50.

Cloud, W. F., 1937, Petroleum production: Norman, Univ. of Okla. Press, p.3-25.

The Industrial Commission of North Dakota, 1953, General rules and regulations for the conservation of crude oil and natural gas: Bismarck, The Indus. Comm. of N. Dak. , p. 1-44, 63-64.

Hazlett, G. W., 1953, Property rights and oil production: Oklahoma City, Interstate Oil Compact Comm., Oil for today and tomorrow, p. 32-45.

Ise, Hohn, 1928, The United States oil policy: New Havin, Yale Univ. Press, p. 342-355.

Kulp, V. H., 1954, Oil and gas rights: Boston, Little, Brown and Co., p.507-510, 540-570, 596-601, 758-769.

Logan, L. M., 1930, Stabilization of the petroleum industry: Norman, Univ. of Okla. Press, p. 41-70.

Murphey, B. M., 1949, Conservation of oil and gas: Sec. of Mineral Law, Am. Bar Assoc., p.347-358, 599-629.

Petroleum Information, 1952, An introduction to the Williston Basin: Bismarck, Petroleum Inf., p.53-64, 91.

Pettengill, S. B., 1936, Hot oil, the problem of petroleum: New York, Economic Forum Co., p.6-9.

The Section of Mineral of The American Bar Association, 1939, Legal history of conservation of oil and gas: Baltimore, Lord Baltimore Press, p. 1-15.

Thompson, A. B., 1950, Oil field development: London, The Tech. Press Ltd., v 2, p. 560-587.